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EXAMINER

MENBERU, BENIYAM

ART UNIT PAPER NUMBER

2626

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,477

Applicant(s)

IZUMI, MICHIIRO

Examiner

Beniyam Menberu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/4/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

Applicant's arguments, see pages 10-13, filed on October 18, 2004, with respect to the rejections of claims 1, 10, 12, and 21 under US Patent No. 5434684 to Sugiyama and claims 11 and 22 under U.S. Patent No. 5434684 to Sugiyama in view of U.S. Patent No. 6335966 to Toyoda, have been fully considered and are not persuasive. Based on the amendment filed on October 18, 2004, a new ground(s) of rejection is made in view of Sugiyama (U.S. Patent No. 5434684) and Toyoda (U.S. Patent No. 6335966), and further in view of Hayashi et al. (U.S. Patent No. 6426809). Therefore, this action is made final.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 12/27/1999. It is noted, however, that applicant has not filed a certified copy of the 11-371418 application as required by 35 U.S.C. 119(b).

Drawings

2. The drawings are objected to because the two boxes on Figure 2B (reference 227 and 228) containing the terms "PCM CODED" is misspelled. It should be spelled "PCM CODEC". The boxes in Figure 2B corresponding to reference number 231 and 232 are not labeled "Pass Switches" as described in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 5, 8-9, 10, 12, 13, 16, 19-20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5434684 to Sugiyama in view of U.S. Patent No. 6426809 to Hayashi et al.

Regarding claims 1, 10, 12 and 21 Sugiyama discloses a selection apparatus for performing the method of selecting color space for transmission (column 3, lines 61-67 and Figure 4, reference 3 and 9). Sugiyama discloses the need to perform conversions to different color spaces (column 4, lines 59-62), which implies different types of receivers and transmission methods. Sugiyama discloses a communication apparatus that communicates with a receiver (column 4, lines 41-42) thus implying the selection of a transmission method or destination (column 4, lines 45-49) since the apparatus has selected a receiver to communicate with. Further, Sugiyama discloses transmission to one of different types of receivers (column 2, lines 54-60) thus showing a selection method for choosing a way of transmission. Sugiyama discloses an apparatus for performing the method of converting the color space depending on the transmission (column 3, lines 63-68), encoding the color space converted image (column 3, line 68; column 4, line 1), and transmission of image (column 4, lines 2-3).

However Sugiyama does not disclose color space conversion before a start of communication with the destination.

Hayashi et al disclose apparatus and method wherein color conversion of image data is executed before the start of communication to a destination (Figure 2, reference S203;column 7, lines 7-19, lines 49-55).

Sugiyama and Hayashi et al are combinable because they are from the similar problem solving area of image processing for communication applications.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform color space conversion prior to communication as taught by Hayashi et al in the system of Sugiyama.

The motivation to combine the reference is clear because Hayashi et al teaches that the color conversion is useful in determining the color information of the input image data and also in order for the destination to receive good color image (column 7, lines 10-15; lines 19-23).

Regarding claims 2 and 13, Sugiyama in view of Hayashi et al teach all the limitations of claims 1 and 12 respectively. Further Sugiyama mentions that the receiver can be of facsimile type device (column 2, lines 54-62) and Sugiyama mentions a communication apparatus that can perform transmission on a digital network (column 1, lines 33-35).

Regarding claims 5 and 16, Sugiyama in view of Hayashi et al teach all the limitations of claims 1 and 12 respectively. Further Sugiyama discloses a coding method in accordance with JPEG (column 6, lines 41-45).

Regarding claims 8 and 19, Sugiyama in view of Hayashi et al teach all the limitations of claims 1 and 12 respectively. Further Sugiyama discloses a scanner that scans image and outputs an RGB data to the system comprising of a selector, converter, encoder, and a transmitter (Figure 4, reference 1, 9, 2, 3; column 2, lines 33-35).

Regarding claims 9 and 20, Sugiyama in view of Hayashi et al teach all the limitations of claims 1 and 12 respectively. Further Sugiyama discloses a disc unit (Figure 9, reference 22; column 4, lines 36-45) for storing image data, which can be used as an input for transmission.

5. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5434684 to Sugiyama in view of U.S. Patent No. 6426809 to Hayashi et al further in view of U.S. Patent No. 6611355 to Kizawa.

Regarding claims 3 and 14, Sugiyama in view of Hayashi et al teach all the limitations of claims 2 and 13 respectively. Further Sugiyama discloses an image communication apparatus comprising a selector, converter, encoder, and a transmitter. Sugiyama discloses a converter that converts color space depending on the compatibility of the receiver side wherein the color space can be LAB type (column 8, lines 63-65). However Sugiyama in view of Hayashi et al does not suggest that LAB color space be used for facsimile transmission.

Kizawa discloses image processing device wherein scanned images are converted to the CIELAB color space for facsimile transmission (Figure 6, ST603; column 12, lines 27-35).

Kizawa and Sugiyama in view of Hayashi et al are combinable because they are from the similar problem solving area of image processing for communication applications.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform color space conversion to LAB color space for facsimile communication in the system of Sugiyama in view of Hayashi et al (Sugiyama: Figure 4 and 5, reference 9) for image transmission.

The motivation to combine the reference is clear since Sugiyama provides for a universal color space converter and Kizawa teaches to use CIELAB color conversion for facsimile transmission.

6. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5434684 to Sugiyama in view of U.S. Patent No. 6426809 to Hayashi et al further in view of U.S. Patent No. 6323872 to Wozniak.

Regarding claims 4 and 15, Sugiyama in view of Hayashi et al teach all the limitations of claims 2 and 13 respectively. Further Sugiyama discloses an image communication apparatus comprising a selector, converter, encoder, and a transmitter. Sugiyama discloses a converter that converts color space depending on the compatibility of the receiver side wherein the color space can be of YCrCb type (column 4, lines 60-62).

Sugiyama in view of Hayashi et al does not suggest that YCrCb color space be used for image transmission over the Internet.

Wozniak teaches that image transmitted over the Internet should be coded using the YCbCr color space (column 1, lines 18-21).

Sugiyama in view of Hayashi et al and Wozniak are combinable since they are both in similar problem solving area of image processing specifically in the area of color conversion.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform color space conversion to YCbCr color space for internet communication in the system of Sugiyama in view of Hayashi et al (Sugiyama: Figure 4 and 5, reference 9) for image transmission.

The motivation for doing so is because YCbCr is the coding used for Internet in accordance with industry standards as mentioned by Wozniak (column 1, lines 18-21).

7. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5434684 to Sugiyama in view of U.S. Patent No. 6426809 to Hayashi et al further in view of U.S. Patent No. 6335966 to Toyoda.

Regarding claims 6 and 17, Sugiyama in view of Hayashi et al teach all the limitations of claims 2 and 13 respectively. Further Sugiyama discloses an image communication apparatus comprising a selector, converter, encoder, and a transmitter wherein the transmitter can select one of a transmission by internet or by facsimile method.

Sugiyama in view of Hayashi et al does not disclose a modulator for modulation of encoded image for facsimile transmission and an e-mail generator to generate e-mail data, which contains encoded image for Internet transmission.

Toyoda discloses a modulation section for facsimile transmission (Figure 2, reference 26; column 5, lines 22-25) and an e-mail generator (Figure 3, reference 32; column 5, lines 55-56).

Sugiyama in view of Hayashi et al and Toyoda are combinable because they are from similar problem solving area of image communication.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to connect the modulator (Figure 2, reference 26) and e-mail generator (Figure 3, reference 32) of Toyoda in between the Coding Unit (Figure 1, reference 2) and the transmission control unit (Sugiyama: Figure 1, reference 3) of Sugiyama in view of Hayashi et al.

The motivation for doing so would have been obvious since modulation is required to transmit signals over telephone network for facsimile transmission and e-mail data has to be transformed into the correct format by a generator before it can be transmitted over the internet.

8. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5434684 to Sugiyama in view of U.S. Patent No. 6426809 to Hayashi et al further in view of U.S. Patent No. 6335966 to Toyoda further in view of U.S. Patent 5818870 to Yaguchi.

Regarding claims 7 and 18, Sugiyama in view of Hayashi et al further in view of Toyoda teach all the limitations of claims 6 and 17 respectively. Further Sugiyama in view of Hayashi et al further in view of Toyoda disclose an image communication apparatus comprising a selector, converter, encoder, and a transmitter wherein a transmitter comprises of a modulator and an e-mail generator.

Sugiyama in view of Hayashi et al further in view of Toyoda does not disclose a PCM encoder to encode the modulated signal by PCM method and a sender which transmits both PCM code in facsimile transmission and e-mail data in internet transmission.

Yaguchi discloses an apparatus for encoding modulated signals with PCM (Figure 1, reference 104; column 4, lines 59-67 and column 5, lines 1-2) and for transmitting PCM data to digital network (Figure 8, reference 101, 803, 802, S (ISDN Network)).

Sugiyama in view of Hayashi et al further in view of Toyoda further in view of Yaguchi are combinable because they are from similar problem solving area of signal encoding.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to connect the output of the modulator disclosed by Sugiyama in view of Hayashi et al further in view of Toyoda (Toyoda: Figure 2, reference 26) to the input of the PCM encoder disclosed by Yaguchi (Figure 1, reference 104). The combined system of Sugiyama in view of Hayashi et al further in view of Toyoda further in view of Yaguchi has a sender for facsimile transmission (see Yaguchi Figure 8, reference 101,

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803, 802, S (ISDN Network)) and e-mail transmission (see Toyoda column 5, lines 66-67; column 6, lines 1-2; Figure 3, reference 33)

The motivation for doing so would have been that if facsimile transmission is done across digital network the modulated signal (analog) disclosed by Sugiyama in view of Hayashi et al further in view of Toyoda has to be converted into a digital format by a PCM encoder which is disclosed by Yaguchi before it is sent over the appropriate network.

9. Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5434684 to Sugiyama in view of U.S. Patent No. 6335966 to Toyoda further in view of U.S. Patent No. 6426809 to Hayashi et al.

Regarding claim 11, Sugiyama discloses an image communication method, the method comprising the steps of:

manually selecting an image transmission method (Sugiyama discloses the need to perform conversions to different color spaces (column 4, lines 59-62), which implies different types of receivers and transmission methods. Sugiyama discloses a communication apparatus that communicates with a receiver (column 4, lines 41-42) thus implying the selection of a transmission method or destination (column 4, lines 45-49) since the apparatus has selected a receiver to communicate with.);

performing color space conversion corresponding to the selected transmission method for an image to be transmitted (Sugiyama discloses an apparatus for performing the method of converting the color space depending on the transmission (column 3, lines 63-68));

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encoding the image subjected to the color space conversion (column 3, line 68; column 4, line 1); and
transmitting the encoded image by the selected transmission method (column 4, lines 2-3).

However Sugiyama does not disclose a computer program product stored on a computer readable medium comprising a computer program code, for an image communication method and color space conversion before a start of communication with the destination.

Toyoda discloses a computer program code for implementing the processing steps used in Toyoda's system (column 19, lines 10-14).

Hayashi et al disclose method wherein color conversion of image data is executed before the start of communication to a destination (Figure 2, reference S203; column 7, lines 7-19, lines 49-55).

Sugiyama, Toyoda, and Hayashi et al are because they are from the similar problem solving area of image processing for communication applications.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform color space conversion prior to communication as taught by Hayashi et al in the system of Sugiyama and to implement the method in a program code stored on a computer readable medium.

The motivation to combine the reference is clear because Hayashi et al teaches that the color conversion is useful in determining the color information of the input image data and also in order for the destination to receive good color image (column 7, lines

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10-15; lines 19-23) and in order to execute the image transmission method it is necessary to implement the method in a program code on a computer.

Regarding claim 22, Sugiyama in view of Toyoda further in view of Hayashi et al disclose a computer program product stored on a computer readable medium comprising a computer program code, for an image communication method, (Toyoda: column 19, lines 10-14) the method comprising the steps of:

manually selecting an image transmission destination (Sugiyama: Sugiyama discloses the need to perform conversions to different color spaces (column 4, lines 59-62), which implies different types of receivers and transmission methods. Sugiyama discloses a communication apparatus that communicates with a receiver (column 4, lines 41-42) thus implying the selection of a transmission method or destination (column 4, lines 45-49) since the apparatus has selected a receiver to communicate with.);

performing color space conversion corresponding to the selected transmission destination for an image to be transmitted (Sugiyama: Sugiyama discloses an apparatus for performing the method of converting the color space depending on the transmission (column 3, lines 63-68))before a start of communication with a communication partner (Hayashi et al: Figure 2, reference S203;column 7, lines 7-19, lines 49-55);

encoding the image subjected to the color space conversion (Sugiyama: column 3, line 68; column 4, line 1); and

transmitting the encoded image by the selected transmission method corresponding to the selected transmission destination (Sugiyama: Sugiyama discloses a communication

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apparatus that communicates with a receiver (column 4, lines 41-42) thus implying the selection of a transmission method or destination (column 4, lines 45-49); column 4, lines 2-3).

Other Prior Art Cited

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5650861 to Nakajima et al discloses image processor for high-speed encoding.

U.S. Patent No. 5726777 to Yoshida et al disclose an apparatus for image transmission.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571) 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Beniyam Menberu

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03/24/2005

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